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EXAMINER				
WATTS, JENNA A				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/589,938

Applicant(s)

ZHAO ET AL.

Examiner

Jenna A. Watts

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (FTO/S3/DP)
Paper No(s)/Mail Date 20061023
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

1. Claims 3-11 are objected to because of the following informalities: Claims 3-11 should begin with "A batter composition". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-4, 6-15, 18, and 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding Claims 3, 6 and 11, the use of parentheses is improper because it is unclear whether the limitation in parentheses is a required or optional limitation.
5. Furthermore, regarding Claim 3, the phrase "which when used...." is contemplative or conditional language, therefore, it is unclear what method steps are actually being performed and what limitations are actually required. Therefore, the claim is indefinite for examination purposes.

6. Regarding Claim 10, there appears to be a limitation missing from the claim because the claim states that “the composition comprises less than 85 wt % based upon the total dry weight digestible carbohydrates”. The specification does not provide any further guidance on this issue. The composition comprises less than 85 wt % of what? It is unclear whether the composition comprises less than 85% digestible carbohydrates, or if it refers to the amount of fibers and insoluble proteins, as per Claim 9, or another limitation not disclosed. Furthermore, it is unclear why a particular component would be claimed as a percentage of the total dry weight of digestible carbohydrates. Furthermore, the word “of” is missing between “weight” and “digestible”.

7. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by “such as” and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, Claims 2-4, 6-9, 14,

15, 18 and 24 recite a broad recitation, and the claims also recites limitations following the phrase "preferably", which is the narrower statement of the range/limitation.

Regarding the above claims, it is unclear whether the limitations following the phrase "preferably" are required or optional limitations.

8. Regarding Claim 11, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

9. Regarding Claims 12 and 13, the phrase "optionally according to Claim 1" is unclear because this could make the claim a dependent or independent claim. Therefore, the scope of the claim is indeterminate for examination purposes.

10. Regarding Claim 14, there appears to be a number limitation missing from the claim in line 2 of the claim, where it is claimed "said insoluble protein is at least "let.%, preferably at least 5 wt.%, more preferably at least 10 wt %". For examination purposes, the first percentage will be interpreted to be 1 wt %, in light of Claim 8.

11. Claims 22-24 provide for the use of a dietary fiber and/or insoluble protein, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually

practiced. Furthermore, regarding Claim 22, the phrase "in particular a dairy or vegetable protein" is unclear because it is unclear whether the dairy or vegetable protein is an exemplified type of protein to be used, or a required claim limitation.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claims 22-24 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. **Claims 1, 3, 5, 7-11, and 15-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhang (Wipo Publication No. WO 01/08513), cited of record by Applicant.**

16. Regarding Claims 1, 7, 15 and 18, Zhang teaches a batter composition because Zhang teaches a dipping pre-mix which is considered to be a coating or batter because Zhang teaches dipping the food in the dipping pre-mix solution (Page 7, lines 11-12), thus forming a coated food product, and further teaches that the dipping pre-mix solution comprises starches, proteins, gums, emulsifiers and/or salts (Page 7, lines 26-28) and in view of Applicant's disclosure of the batter composition which comprises comparable ingredients (see Applicant's specification, Page 9, Example 1). Zhang further teaches that the composition comprises at least one of insoluble vegetable protein and insoluble dietary fibers because Zhang teaches that the proteins used in the dipping pre-mix solution may be corn protein (Page 8, lines 1-2), which is considered an insoluble protein in light of Claim 7, because corn protein is a protein from a cereal.
17. Regarding Claims 3 and 22, Zhang teaches that the composition, when used in frozen coated food products provides a crispy texture after microwaving and/or oven-baking (Page 1, lines 5-8).
18. Regarding Claim 5, Zhang teaches that the composition comprises a dietary fiber such as guar or xanthan gum (Page 8, lines 6-8).
19. Regarding Claim 8, Zhang teaches that the combined amount of the fibers and the insoluble proteins is at least 1 wt %, based upon the total dry weight, because Zhang teaches that the dipping pre-mix solution includes 1-10% of dry mixture, including substantially 1-10% dry weight protein (Page 6, lines 5-7). It is noted that since Claim 1 does not require both the fiber and protein, Zhang meets the claimed limitations with the claimed amount of protein.

20. Regarding Claims 9 and 10, Zhang teaches that the combined amount of ingredients other than the fibers and the insoluble proteins is 95% wt % or less, based on the total dry weight, because Zhang teaches that along with the protein, the dipping pre-mix solution comprises 5-20% dry weight starch, 0.5 to 5% dry weight gum, 10-50% dry weight phosphate, 10-50% dry weight salt and 0.1 to 1% dry weight emulsifier (Page 6, lines 5-10), wherein the amount of the other ingredients amounts to as little as 25.6 wt %. Regarding Claim 10, where the claim limitation refers to the amount of ingredients other than the fibers and insoluble proteins, Zhang meets the claimed limitation as set forth above in the rejection of Claim 9.
21. Regarding Claim 11, Zhang teaches that the composition comprises starches and gums which are considered thickeners, as well as salt (Page 6, lines 5-10, Page 7, lines 26-28 and Page 8, lines 6-8).
22. Regarding Claims 16 and 17, Zhang teaches that the coated food product is frozen (see rejection of Claim 3), and further teaches that the food can be fish, poultry, seafood, vegetables, etc. (Page 6, lines 29-31).
23. Regarding Claims 19 and 20, Zhang is taken as cited above in the rejection of Claim 1 and teaches a process for preparing a coated food product comprising coating the food product with a composition according to Claim 1, which comprises insoluble vegetable protein mixed with other ingredients (Page 7, lines 11-12 and 26-28).
24. Regarding Claim 21, Zhang teaches a method for preparing food, comprising baking and/or microwaving the food product (Page 1, lines 5-8 and Page 12, lines 1-5).

25. **Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Landon (Australian Patent Application No. 54821/90), cited of record by Applicant.**

26. Regarding Claim 2, Landon teaches a batter composition comprising an insoluble dairy protein such as casein (Page 5, lines 1-3).

27. **Claims 1, 3, 4, 7, 11-13, and 15-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bengtsson et al. (U.S. Patent No. 4,272,553).**

28. Regarding Claims 1, 4, 7, 12, 13, 15, 18, 19, and 23, Bengtsson teaches a batter composition comprising at least one of insoluble vegetable protein and insoluble dietary fibers because Bengtsson teaches a coating composition comprising potato fiber (Column 2, lines 27-41, Column 3, lines 63-64 and Column 4, lines 3-7), which is considered an insoluble dietary fiber in light of Claim 4, with the coating composition being considered a batter because Bengtsson teaches a process wherein the coating is applied directly to the food product and in view of Applicants disclosure of the batter composition which comprises comparable ingredients (see Applicant's specification, Page 9, Example 1).

29. Regarding Claims 3, 16, and 22, Bengtsson teaches that the composition, which when used in a frozen coated food products, provides a crispy texture after microwaving or oven-baking (Column 3, lines 63-64 and Column 4, lines 3-7).

30. Regarding Claims 11 and 20, Bengtsson further teaches that the coating or batter composition comprises flours, gums, etc. that are all mixed together (Column 2, lines 30-40).

31. Regarding Claim 17, Bengtsson teaches that the coated food product is a vegetable (Column 2, lines 10-13).
32. Regarding Claim 21, Bengtsson teaches that the food may be reheated in any convenient manner, eg. in an oven, in oil or by pan frying (Column 4, lines 4-7), wherein oven cooking is synonymous with baking.

Claim Rejections - 35 USC § 103

33. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

34. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

35. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

36. Claims 6 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (Wipo Publication No. WO 01/08513), cited of record by Applicant.

37. Zhang is relied upon as above for the rejection of Claim 1.

38. Since Zhang teaches a claimed insoluble protein, the solubility of the protein and/or dietary fiber in water at pH of 7 at a temperature of 20°C would be expected to be 10 wt % or less, based upon the total weight of the solution because it has been found that since Zhang teaches a component in a coating or batter composition that is the same as that claimed by Applicant, the component will react or co-act in the same manner as claimed by Applicant. Furthermore, it is noted that the component and its properties are inseparable. Therefore, if the components are present, their properties would also be necessarily present.

39. Claims 6 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bengtsson et al. (U.S. Patent No. 4,272,553).

40. Bengtsson is relied upon as above for the rejection of Claim 1.

41. Since Bengtsson teaches a claimed insoluble fiber, the solubility of the protein and/or dietary fiber in water at pH of 7 at a temperature of 20°C would be expected to be 10 wt % or less, based upon the total weight of the solution because it has been

found that since Bengtsson teaches a component in a coating or batter composition that is the same as that claimed by Applicant, the component will react or co-act in the same manner as claimed by Applicant. Furthermore, it is noted that the component and its properties are inseparable. Therefore, if the components are present, their properties would also be necessarily present.

42. Claims 1, 3, 5-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (Wipo Publication No. WO 01/08513), cited of record by Applicant, in view of McCue, ("Prepared Foods", 1996).

43. Regarding Claims 1, 7, 20, and 22, in the alternative, and Claims 12 and 13, where Zhang does not specifically teach an insoluble vegetable protein or an insoluble vegetable protein from a potato, tuber, root or soy, McCue teaches that protein can be found in a variety of foods, including potatoes, and teaches high protein products, are favored by weight lifters and other athletes, and further teaches that protein contributes to an increased immune response, muscle mass, as well as to maintain good health (Page 1, Paragraphs 3-6). McCue further teaches that potato proteins are insoluble proteins known to be used for a variety of end-uses, including pet foods, where a potato source of protein might sometimes be found to help with allergenicity issues, food-grade applications for institutional foods, health foods, and protein-based foods (Page 2, Paragraphs 2, 4 and 5).

44. Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made, for the vegetable protein source of the batter

composition of Zhang to have been substituted for insoluble potato protein, because McCue teaches that potatoes are a known source of protein and have application in a variety of food end uses, including protein-based foods. One of ordinary skill in the art would have expected a reasonable degree of success, in light of McCue, to use a known source of protein such as insoluble potato protein as the vegetable protein source in a batter or coating composition.

45. Regarding Claims 3, 5, and 7-11, 15-19, and 21, Zhang is taken as cited above in the 102b rejections set forth above.

46. Regarding Claims 6 and 24, since Zhang in view of McCue teach the claimed insoluble vegetable protein, the solubility of the protein and/or dietary fiber in water at pH of 7 at a temperature of 20°C would be expected to be 10 wt % or less, based upon the total weight of the solution because it has been found that since Zhang in view of McCue teach a component in a coating or batter composition that is the same as that claimed by Applicant, the component will react or co-act in the same manner as claimed by Applicant. Furthermore, it is noted that the component and its properties are inseparable. Therefore, if the components are present, their properties would also be necessarily present.

47. Regarding Claim 14, Zhang in view of McCue teach the claimed limitation (see Zhang in the 102b rejection of Claim 8).

48. **Claims 1 and 3-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (Wipo Publication No. WO 01/08513), cited of record by Applicant, in view of Bengtsson et al. (U.S. Patent No. 4,272,553).**

49. Regarding Claims 1, 4, 12, 13, 20 and 23, Zhang teaches that the dipping pre-mix solution/batter comprises starches, proteins, gums, emulsifiers and/or salts (Page 7, lines 26-28) does not specifically teach insoluble dietary fibers or insoluble dietary fibers from tubers, roots or potatoes.

50. Bengtsson is taken as cited above in the 102b rejection above and teaches a batter composition comprising at least one of insoluble vegetable protein and insoluble dietary fibers because Bengtsson teaches a coating composition comprising potato fiber (Column 2, lines 27-41, Column 3, lines 63-64 and Column 4, lines 3-7), which is considered an insoluble dietary fiber in light of Claim 4, with the coating composition being considered a batter because Bengtsson teaches a process wherein the coating is applied directly to the food product and in view of Applicants disclosure of the batter composition which comprises comparable ingredients (see Applicant's specification, Page 9, Example 1). Bengtsson teaches that the coating can include various components including wheat or cereal flours, starches, potato fibers, thickeners, stabilizers, celluloses, gums, etc. and further teaches that these different substances may be used alone or in different combinations (Column 2, lines 30-40).

51. Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made, for an insoluble dietary fiber such as potato fiber to have been used in the batter or coating composition of Zhang, because Bengtsson

teaches a variety of components can be included in a coating composition for food products such as vegetables, and one of ordinary skill in the art would have expected a reasonable degree of success in using one of the known components taught by Bengtsson, such as potato fiber, in a coating or batter composition for food products that provides a crispy texture upon cooking.

52. Regarding Claims 3, 5, and 7-11, 15-19, 21 and 22, Zhang is taken as cited above in the 102b rejections set forth above.

53. Regarding Claims 6 and 24, since Zhang in view of Bengtsson teach the claimed insoluble vegetable protein, the solubility of the protein and/or dietary fiber in water at pH of 7 at a temperature of 20°C would be expected to be 10 wt % or less, based upon the total weight of the solution because it has been found that since Zhang in view of Bengtsson teach a component in a coating or batter composition that is the same as that claimed by Applicant, the component will react or co-act in the same manner as claimed by Applicant. Furthermore, it is noted that the component and its properties are inseparable. Therefore, if the components are present, their properties would also be necessarily present.

54. Regarding Claim 14, Zhang in view of Bentsson teach the claimed limitation (see Zhang in the 102b rejection of Claim 8).

Conclusion

55. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna A. Watts whose telephone number is (571) 270-7368. The examiner can normally be reached on Monday-Friday 9am-5:00pm.

56. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

57. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. SAYALA/
Primary Examiner, Art Unit 1794

/Jenna A. Watts/
Examiner, Art Unit 1794
December 8, 2009